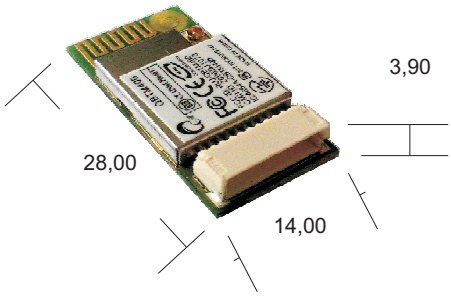
Specification

95865

Delock industry Bluetooth 2.1 EDR USB 2.0 module (mini. Coax)



date: 28.04.2009

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• Device Overall Description

The 95865 is designed to provide Bluetooth2.1 + EDR function on a small form factor. The Bluetooth function is based on CSR BlueCore4-ROM (A07) Single Chip Bluetooth System, which implements the full speed class 2 Bluetooth operations with full 7 slave Piconet support. The interface of 95865 to host system is USB and full compliant with USB V1.1 and compatible with USB V2.0 Full Speed (12Mbits/s).

• Bluetooth

Features

- CSR BlueCore4-ROM (A07) Single Chip Bluetooth System
- Bluetooth 2.1 + EDR support
- Class 2 Bluetooth operation with full 7 slave Piconet support
- Full Speed USB interface compliant with USB V1.1 and compatible with USB V2.0
- Single onboard Antenna connector support
- Simple Pairing, Version 2.1 + EDR to advance its short range wireless technology and make it easier for consumers to connect *Bluetooth* devices.

Specification Compliance

- Bluetooth Specification V1.2, V2.0, V2.1 and V.2.1+EDR compliant
- USB Specification V1.1
- compatible with USB V2.0 Full Speed (12Mbits/s)

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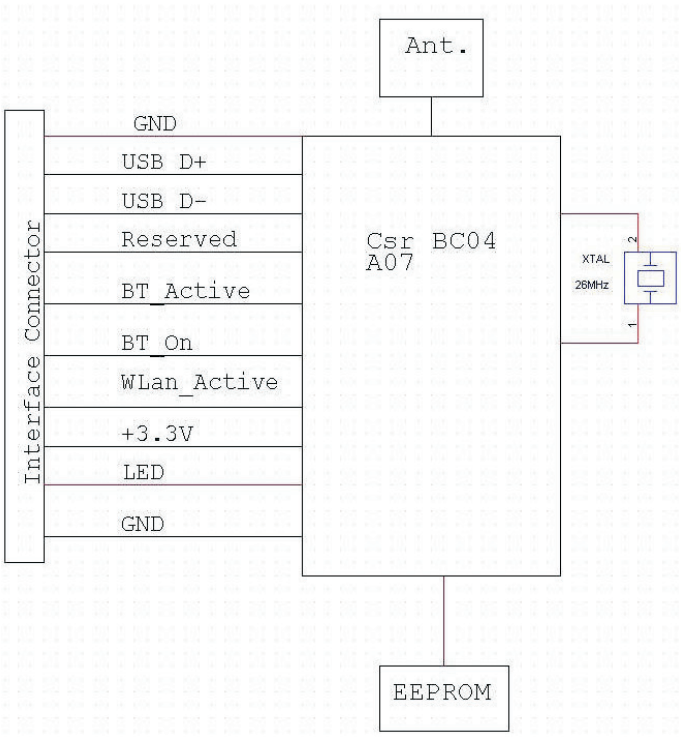
Bluetooth Block Diagram



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Modulation methods

FHSS (frequency hopping spread spectrum) defined in Bluetooth specification.

	Data rate	Modulation scheme
Basic data rate	1 Mbps	GFSK
Enhanced data rate	2 Mbps	π/4 DQPSK
	3 Mbps	8DQPSK

Channel assignment

Country	Freq. range	RF channel
Europe* & USA	2400~2483.5MHz	Freq. = 2402 + k MHz k = 0~78
Japan	2400~2483.5MHz	Freq. = 2402 + k MHz k = 0~78

*Most Europe area except Spain and France

Bluetooth power consumption

Electrical characteristics	Minimum	Typical	Maximum	Units
Supply voltage	3	3,3	3,6	V
Continuous RX supply current		55		mA
Continuous TX supply current		46		mA
Idle mode		3,3 ~ 9		mA
Radio disable mode		0,07		mA

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RF Characteristics

RF Characteristics	Mini.	Typical	Max.	SPEC Requirement	Units
Antenna I/F Impedance		50			ohms
Ambient Operating Temperature Rage	0		70		°C
Storage Temperature Rage	-20		85		°C
Supply Voltage (3.3V only)	3	3	3,6		V
TX Supply Current (at 3.3V)		55			mA
RX Supply Current (at 3.3V)		46			mA
Idle mode Current		3,3 ~ 9			mA
Basic Rate RX Sensitivity, 2402 Mhz		< -70		-70	dBm
Basic Rate RX Sensitivity, 2441 MHz		< -70		-70	dBm
Basic Rate RX Sensitivity, 2480 MHz		< -70		-70	dBm
EDR RX Sensitivity, 2402 MHz		< -70		-70	dBm
EDR RX Sensitivity, 2441 MHz		< -70		-70	dBm
EDR RX Sensitivity, 2480 MHz		< -70		-70	dBm
TX Output Power, 2402MHz		2		-6 ~ +4	dBm
TX Output Power, 2441MHz		2		-6 ~ +4	dBm
TX Output Power, 2480MHz		2		-6 ~ +4	dBm
Initial Carrier Frequency Tolerance	>-10		<10	+-75	khz
Carrier Frequency Drift, DH3 (01010101)	>-10		<10	40	khz
Carrier Frequency Drift, DH5 (01010101)	>-10		<10	40	khz
Carrier Frequency Drift Rate, DH3 (01010101)	>-10		<10	20	khz
Carrier Frequency Drift Rate, DH5 (01010101)	>-10		<10	20	khz
Modulation Characteristics, ΄Δf1 avg (DH1 ,00001111, kHz)		165		140~175	khz
Modulation Characteristics, ΄Δf2 max (DH1 ,00001111, kHz)		180		>115	khz
Modulation Characteristics, ΄Δf2 avg /Δf1 avg		1		>=0,8	khz
20 dB Bandwidth			>900	1000	khz
TX Output Spectrum – Frequency Range (FL)	2401			2400	Mhz
TX Output Spectrum – Frequency Range (FH)			2481	2483,5	Mhz
Maximum Input Level		>-20		-20	dBm
EDR Maximum Input Level		>-20		-20	dBm

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Host Interface Connector

Connector:

1. Kabo Wafer-1.0-1001-1093
2. ACES 87213-1000
3. or compliance

Software & OS support:

- Windows Vista/XP SP2 native supported Profiles - DUN, HCRP, HID, OPP, PAN-U and SPP
- IVT Bluesoleil Bluetooth Stack for **Windows Vista/XP** –A2DP, AG, AV, BIP, DUN, FTP, HCRP, HID, LAP, OPP, PAN-GN, PAN-U, SPP, SYNC and HS.
(Profiles might change without prior notice; please refer to the SW release document for detail.)

IVT Bluesoleil Bluetooth Stack for Windows Vista/XP, Bluetooth SIG QDID B010568

Regulation:

QBTM400 : Bluetooth SIG QD ID B013757

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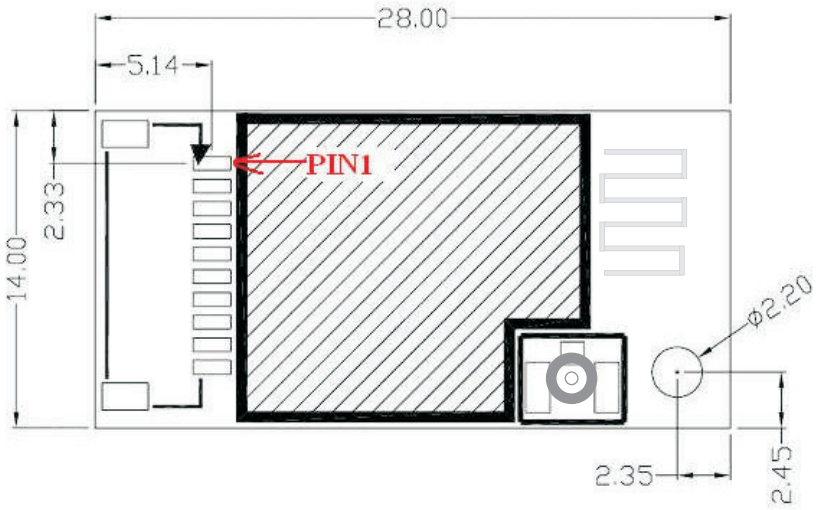
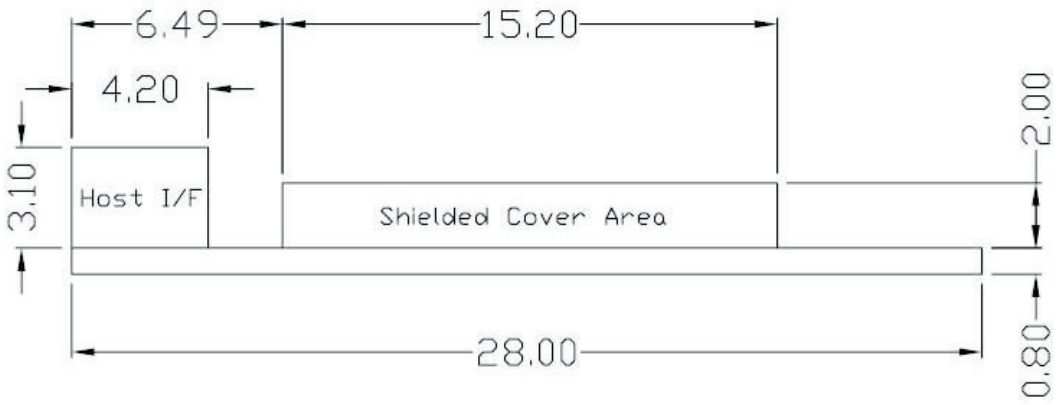
• Mechanical dimension

- 28mm x 14mm x 3.9mm (L x W x H) +- 0.15mm
(additional barcode label thickness: 0.14mm +/-0.01mm)



- Component height (unit: mm)



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Pinout and definition

Pin#	signal name	description
1	GND	
2	USB D+	USB data plus
3	USB D-	USB data minus
4	reserved	
5	BT_Active	For WLAN & BT co-existence signal
6	BT_On	Active High to enable BT function, low to disable BT function
7	WLAN_Active	For WLAN & BT co-existence signal
8	+3,3V	Positive supply for whole module
9	LED	BT activity LED indicator, active high to indicate the BT activity.
10	GND	

cable optional Delock A95845